Remarks

This is in response to the Office Action dated December 1, 2004.

In response to the requirement for a new title, the title of the invention has been amended to "Object Monitoring Apparatus with Multiple Predetermined Focus Positions".

Claim 2 was rejected under 35 U.S.C. 102(b) as being anticipated by Ishida et al. (EP 0908846A2)[1].

The instant invention, as set forth in claim 2, recites second means for moving the lens to change an in-focus position among predetermined positions different from each other, third means for analyzing the frequencies of the video signals that are generated when the in-focus position coincides with the predetermined positions, means for deciding a highest of the frequencies analyzed, and means for indicating the video signal that has the highest frequency.

In contrast, the objective of the Ishida et al. '846 invention is to ensure that changes that are not occurring within a monitoring area are not detected (column 2, lines 30-43). Thus, Ishida et al. '846 do not disclose the moving of the lens to among predetermined positions that are different from each other. Rather, Ishida et al. '846 disclose the use of a focus detection area setting unit 7 that designates an image area that is to be automatically focused by the focus control unit 8, as shown in Fig. 8 (column 4, lines 45-47). Further, Ishida et al. '846 disclose a moving object detection unit 5 that detects a moving object in the image obtained from the camera processing unit 4. This detected

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[1] It should be pointed out that the '846 reference is not a 35 U.S.C. 102(b) reference, as it was published on April 14, 1999 whereas the instant application claims priority from Japanese application JP 2000-36120, which has a filing date of February 15, 2000. The claim for priority was perfected with the filing of the priority document at the time the instant application was filed. Thus, the '846 reference was published not more than one year from the priority date of the instant application. Accordingly, the rejection under the '846 reference is being treated as a 35 U.S.C. 102(e) rejection.

moving image is deemed to be a difference image that has pixels that have different pixel values than that previously detected for the monitoring area. Thus, Ishida et al. '846 do not analyze the frequencies of the video signals that are generated when the in-focus position coincides with the predetermined positions, the deciding of the highest of the frequency, and, after the decision, the indicating of the video signal that has the highest frequency.

The examiner asserts that column 5, lines 3-17 of Ishida et al. disclose the third and fourth means recited in claim 2. Yet that portion of Ishida et al. actually discloses that focusing control unit 8 would move and adjust the position of the focusing lens 2 along its optical axis, so as to maximize a high frequency component contained in the portion of the output image signal from the camera processing unit 4, which corresponds to the area set by the focus detection area setting unit 7. Thus, there is no disclosure in that portion of Ishida et al. of any predetermined positions that are different from each other to which the lens is to be focused, or means for deciding the highest of frequencies analyzed. If anything, Ishida et al. aim to maximize the high frequency component by moving the lens.

The examiner moreover asserts that the fifth means and the function it performs are disclosed in Fig. 20, step 40 and column 11, lines 13-19. Yet those portions of Ishida et al. refer to step S40 on Fig. 18, which is the detection of the distance to the moving object. The only thing that Fig. 20 and in particular step S40 discloses is whether or not the moving object is in a focused state, as determined by the focus detection area setting unit 7. As fully disclosed by Ishida et al., if the moving object is not in-focus, then the CPU 22 will repeat the process in step S40 until the moving object is in-focus. This function disclosed by Ishida et al. does not appear to have any bearing on the invention as set forth in claim 2, which determines, from among the video signals that correspond to the in-focus positions that coincide with the predetermined positions, the highest frequency signal. Nothing like it is disclosed in Ishida et al.

Claim 3 was rejected under 35 U.S.C. 102(b) as being anticipated by Komiya (USP 5,115,262).

Komiya also fails to disclose, or suggest, the moving of the lens to change an in-focus position among predetermined positions that are different from each other. Rather, Komiya discloses an auto focusing apparatus that essentially uses the focus signal f(x), in the form of a combination of discrete signal values, to control the driving of the motor driving circuit 15, in order to perform focus adjustment. As shown in Fig. 1 relied upon by the examiner, the image signal is input to a band pass filter (BPF) 5, which in turn is sent to a gate 8 where the signal component associated with the target in-focus region from the image signal is extracted and provided to a detector 9. The signal from detector 9 is then sent to an analog to digital converter 10, and to a digital integrator 11, so that the signal that does form, i.e., f(x), is fed to the microprocessor 7, which combines the signal with the proper exposure time signal from a premetering circuit 6 to control the movement of the drive motor, for moving the lens to effect focusing of the object.

In addition to the lacking of any second means for moving the lens to among predetermined positions different from each other as noted above in claim 3, Komiya moreover fails to teach any third means to six means, at minimum, and the respective functions performed by those means, as recited in claim 3.

In light of the foregoing, applicants respectfully submit that the examiner's rejections of claims 2 and 3 can not be sustained. Accordingly, early allowance of those claims is respectfully solicited.

Respectfully submitted,

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